2002
Virginia Department of Transportation
Daily Traffic Volume Estimates
Including Vehicle Classification Estimates

where available

Special Locality Report
112

Town of Front Royal

Prepared By

Virginia Department of Transportation
Mobility Management Division

In Cooperation With

U.S. Department of Transportation
Federal Highway Administration

Virginia Department of Transportation
Mobility Management Division
Traffic Monitoring Section

The Virginia Department of Transportation (VDOT) conducts a program where traffic count data are gathered from sensors in or along streets and highways and other sources. From these data, estimates of the average number of vehicles that traveled each segment of road are calculated. VDOT periodically publishes booklets listing these estimates.

One of these booklets, titled "Average Daily Traffic Volumes with Vehicle Classification Data, on Interstate, Arterial and Primary Routes" includes a list of each Interstate and Primary highway segment with the estimated Annual Average Daily Traffic (AADT) for that segment. AADT is the total annual traffic estimate divided by the number of days in the year. This booklet also includes information such as estimates of the percentage of the AADT made up by 6 different vehicle types, ranging from cars to double trailer trucks; estimated Annual Average Weekday Traffic (AAWDT), which is the number of vehicles estimated to have traveled the segment of highway during a 24 hour weekday averaged over the year; as well as Peak Hour and Peak Direction factors used by planners to formulate design criteria.

In addition to the Primary and Interstate publication, one hundred books are published periodically, one for each of 100 areas across the state defined by VDOT for record-keeping purposes. These books include traffic volume estimates for roads within the county, cities, and towns within the area. These books are titled "Daily Traffic Volumes Including Vehicle Classification Estimates, where available; Jurisdiction Report numbers 00 through 99".

Also available are a number of reports summarizing the average Vehicle Miles Traveled (VMT) in selected jurisdictions and other categories of highways. There are many different ways to present traffic volume summary information. Because the user determines the value of each presentation, the reports have been redesigned based on user requests and feedback. The people at VDOT Mobility Management's Traffic Monitoring Section who produce these books welcome requests for other helpful ways of presenting the summary information.

A compact disc (CD) is available that includes files in the Adobe® Portable Document Format (PDF) that can be displayed, searched, and printed using common desktop computer equipment. The CD includes the publications described above as well as a number of other reports, including specialized VMT summaries and smaller AADT reports for each city and town separately.

Publication Notes

Parallel Roads

For road inventory and management purposes, some roadways are counted separately by direction and have separately published traffic estimates for each direction of travel. Examples of such roadways are the interstate system and routes with separated facilities and (usually) one-way traffic facilities in urban areas. In these publications, they are referred to as parallel roads. As a convenience for the users of the publication, the listing for segments of roads with parallel segments are published with both the traffic estimates for their own direction of travel (e.g. I-95 Northbound) as well as the estimate of the total of all traffic on the same route including parallel roadways (all directions of I-95). The publication will have a "Combined Traffic Estimates for Parallel Roadways on this Route" or "Combined Traffic" identifiers for the combined direction of travel estimates.

Roadways such as I-395 with a North segment, a South segment and a separate Reversible lane segment will have the estimate for more than two parallel roadways included in the entire combined traffic estimate.

Some routes have very complicated paths through cities and towns. These parallel paths may be too complex to allow a relationship between nearby sections of the opposite direction on the same route. In this case, to indicate that the traffic estimates for such a road segment may not include all directions of traffic on that route, the line that would list the combined values will indicate "NA" for not available.

VDOT's traffic monitoring program includes more than 100,000 segments of roads and highways ranging from several mile sections of Interstate highways to very short sections of city streets. Due to problems experienced obtaining some traffic count data, and the level of quality necessary to maintain confidence in the data, no estimate is currently available for some segments of roadway. These segments are included in the publications indicating "NA" for not available. It is the intention of the VDOT's Mobility Management Traffic Monitoring group to obtain the data necessary and to report traffic volume estimates on all road segments included in these publications.

Many of the road segments in this program are local secondary roads. The amount and detail of data collected on these roads are not as great as the data collected on higher volume roads. The vehicle classification, average weekday traffic volumes, and the theoretical design hour traffic volumes are not calculated for these roads. The publications indicate "NA" for the information that is not available.

This publication is based on a traffic monitoring program initiated in 1997. Because the data collection techniques and statistical evaluation processes are different than those used in previous years, comparison with previous publications may be misleading.

Glossary of Terms:

Route: The Route Number assigned to this segment of roadway with the master inventory route number if this is an overlapping route, with official street or highway name if available.

Length: Length of the traffic segment in miles.

AADT: Annual Average Daily Traffic. The estimate of typical daily traffic on a road segment for all days of the week, Sunday through Saturday, over the period of one year.

QA: Quality of AADT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- H Historical Estimate
- M Manual Uncounted Estimate
- N AADT of Similar Neighboring Traffic Link
- O Provided By External Source
- R Raw Traffic Count, Unfactored

4Tire: Percentage of the traffic volume made up of motorcycles, passenger cars, vans and pickup trucks.

Bus: Percentage of the traffic volume made up of busses.

2Axle Truck: Percentage of the traffic volume made up of 2 axle single unit trucks (not including pickups and vans).

3+Axle Truck: Percentage of the traffic volume made up of single unit trucks with three or more axles.

1Trail Truck: Percentage of the traffic volume made up of units with a single trailer.

2Trail Truck: Percentage of the traffic volume made up of units with more than one trailer.

QC: Quality of Classification Data:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- C Short Term Classified Traffic Count Data
- F Factored Short Term Traffic Count Data
- H Historical Estimate
- M Mass Collective Average
- N Classification Estimates of Similar Neighboring Traffic Link

Peak Hour: The estimate of the traffic volume for the 30th highest traffic volume occurring in a one-year period divided by the AADT for the same one-year period.

QK: Quality of the Peak Hour estimate:

- A Factor based on 30th Highest Hour Observed During 12 Months of Continuous Traffic Data
- B Factor based on 30th Highest Hour Observed During Less than 12 Months of Continuous Traffic Data
- F Factor based on Highest Hour Collected at in a 48 Hour Weekday Period
- M Factor based on Manual Estimate of 30th Highest Hour
- N Peak Hour Factor of Similar Neighboring Traffic Link
- O Provided by External Source

Dir Factor: The estimate of the portion of the traffic volume traveling in the peak direction during the Peak Hour..

AAWDT: Average Annual Weekday Traffic. The estimate of typical traffic over the period of one year for the days between Monday through Thursday inclusive.

QW: Quality of AAWDT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- M Manual Uncounted Estimate
- N AAWDT of Similar Neighboring Traffic Link
- O Provided by External Source

Year: Year for which the published values are appropriate. If the Quality of AADT (QA) is "R", the year is the year that the raw traffic count was collected, and if available,

Route Shield Legend

Route Systems

Interstate Route

Traffic volume data for Interstate Routes and some other routes are reported separately by direction, as well as combined.

US Route

Virginia State Route

Secondary Route

Special Routes

Bus - Business Route
Bypas - Bypass Route
Truck - Truck Route

ALT - Alternate Route
Wve - Wve Route connector

P - Parallel Route; Southbound or Westbound direction lanes of a numbered route where they are on a different road facility than the other direction.

The VDOT Maintainenance Jurisdiction number is displayed below the Secondary Route Number if the Maintenance Jurisdiction is different than the jurisdiction in the title of the report.

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Route	Length	AADT	QA	4Tire	Bus	Truck 2Axle	Truck 3+Axle	Truck 1Trail	Truck 2Trail	QC	Peak Hour	QK	Dir Factor	AAWDT	QW	Year
Town of Front Royal																
55 Strasburg Rd	0.90	**8200**	**F**	From: WCL Front Royal												
				94%	1%	2%	2%	1%	0%	C	0.095	F	0.615	8600	F	2002
				To: US 340; 522												
55 522 Shenandoah Ave	0.34	**26000**	**F**	From: CL Front Royal												
				96%	0%	1%	1%	1%	0%	F	0.083	F	0.505	26000	F	2002
				To: 14 ST												
55 522 14th St	0.24	**21000**	**F**	From: Shenandoah Ave												
				96%	0%	1%	1%	1%	0%	F	0.080	F	0.526	21000	F	2002
				To: North Royal Ave												
55 522 North Royal Ave	0.35	**23000**	**F**	From: 14TH ST												
				96%	0%	1%	1%	1%	0%	C	0.080	F	0.527	24000	F	2002
				To: US 522,SR 340												
55 340 North Royal Ave	0.25	**12000**	**F**	From: RT 522 & RT 340												
				98%	0%	1%	0%	1%	0%	F	0.078	F	0.542	13000	F	2002
				To: 6th St												
55 340 North Royal Ave	0.57	**15000**	**F**	From:												
				98%	0%	1%	0%	1%	0%	C	NA			16000	F	2002
				To: E Main St												
55 340 South Royal Ave	0.40	**15000**	**F**	From:												
				97%	0%	1%	1%	1%	0%	C	0.077	F	0.514	15000	F	2002
				To: US 340												
55 South St	0.54	**13000**	**F**	From:												
				94%	1%	3%	1%	1%	0%	C	0.083	F	0.572	14000	F	2002
				To: US 522												
55 John Marshall Hwy	1.72	**12000**	**F**	From:												
				95%	0%	2%	1%	1%	0%	C	0.095	F	0.667	13000	F	2002
				To: ECL Front Royal												
340 South Royal Ave	0.31	**13000**	**F**	From: SCL Front Royal												
				95%	0%	1%	1%	2%	0%	F	0.077	F	0.63	14000	F	2002
				To: SR 55 South St												
340 South Royal Ave	0.40	**15000**	**F**	From:												
				97%	0%	1%	1%	1%	0%	C	0.077	F	0.514	15000	F	2002
				To: E Main St												
340 North Royal Ave	0.57	**15000**	**F**	From:												
				98%	0%	1%	0%	1%	0%	C	NA			16000	F	2002
				To: 6th St												
340 North Royal Ave	0.25	**12000**	**F**	From:												
				98%	0%	1%	0%	1%	0%	F	0.078	F	0.542	13000	F	2002
				To: US 522, 8th St												
340 522 North Royal Ave	0.35	**23000**	**F**	From:												
				96%	0%	1%	1%	1%	0%	C	0.080	F	0.527	24000	F	2002
				To: 14th St												
340 522 14th St	0.24	**21000**	**F**	From: North Royal Ave												
				96%	0%	1%	1%	1%	0%	F	0.080	F	0.526	21000	F	2002
				To: Shenandoah Ave												
340 522 Shenandoah Ave	0.34	**26000**	**F**	From: 14th St												
				96%	0%	1%	1%	1%	0%	F	0.083	F	0.505	26000	F	2002
				To: CL Front Royal												
522 Chester Gap Rd	0.60	**8300**	**G**	From: SCL Front Royal												
				97%	0%	1%	1%	1%	0%	C	NA			8300	G	2002
				To: Criser Rd												
522 Chester Gap Rd	0.35	**11000**	**F**	From:												
				97%	0%	1%	1%	1%	0%	F	0.094	F	0.627	11000	F	2002
				To: SR 55 South St												
522 Commerce Ave	0.47	**22000**	**F**	From:												
				98%	0%	1%	0%	1%	0%	C	0.089	F	0.517	23000	F	2002
				To: Main St												
522 Commerce Ave	0.74	**16000**	**F**	From:												
				97%	0%	1%	0%	1%	0%	C	0.086	F	0.516	16000	F	2002
				To: Happy Creek Rd												
522 Commerce Ave	0.35	**13000**	**F**	From:												
				97%	0%	1%	0%	1%	0%	F	0.084	F	0.505	14000	F	2002
				To: US 340 North Royal Ave												
522 North Royal Ave	0.35	**23000**	**F**	From: Commerce Ave												
				96%	0%	1%	1%	1%	0%	C	0.080	F	0.527	24000	F	2002
				To: 14th St												
522 14th St	0.24	**21000**	**F**	From: North Royal Ave												
				96%	0%	1%	1%	1%	0%	F	0.080	F	0.526	21000	F	2002
				To: Shenandoah Ave												

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Route	Length	AADT	QA	4Tire	Bus	Truck 2Axle	Truck 3+Axle	Truck 1Trail	Truck 2Trail	QC	Peak Hour	QK	Dir Factor	AAWDT	QW	Year
Town of Front Royal																
522 Shenandoah Ave	0.34	**26000**	**F**	96%	0%	1%	1%	1%	0%	F	0.083	F	0.505	26000	F	2002
From: 14th St																
To: NCL Front Royal																
2 Criser Rd	0.51	**2100**	**F**	99%	0%	1%	0%	0%	0%	C	0.089	F	0.525	2200	F	2002
From: Luray Ave																
To: South Royal Ave																
2 Criser Rd	0.71	**3700**	**F**	99%	0%	1%	0%	0%	0%	F	0.103	F	0.698	3900	F	2002
From: South Royal Ave																
To: Chester Gap Rd																
4001 Luray Ave	0.45	**870**	**F**	98%	0%	1%	0%	1%	0%	F	0.101	F	0.605	920	F	2002
From: WCL Front Royal																
To: Stonewall Dr																
4001 Luray Ave	0.21	**1300**	**F**	98%	0%	1%	0%	1%	0%	C	0.100	F	0.571	1400	F	2002
From: Stonewall Dr																
To: W Main St																
4002 Stonewall Dr	0.25	**480**	**F**	99%	0%	1%	0%	0%	0%	F	0.098	F	0.685	510	F	2002
From: Luray Ave																
To: US 340 South Royal Ave																
4002 Stonewall Dr	0.42	**2700**	**F**	99%	0%	1%	0%	0%	0%	C	0.095	F	0.647	2900	F	2002
From: US 522 Commerce Ave																
To: Charles St																
4004 West Main St	0.64	**1500**	**F**	97%	1%	1%	0%	1%	0%	F	0.094	F	0.616	1600	F	2002
From: Kerfoot Ave																
To: Luray Ave																
4004 West Main St	0.07	**2400**	**F**	97%	1%	1%	0%	1%	0%	F	0.088	F	0.661	2600	F	2002
From: Luray Ave																
To: North Royal Ave																
4004 East Main St	0.25	**3400**	**F**	97%	1%	1%	0%	1%	0%	F	0.088	F	0.514	3600	F	2002
From: North Royal Ave																
To: Blue Ridge Ave																
4004 East Main St	0.13	**3000**	**F**	97%	1%	1%	0%	1%	0%	F	0.089	F	0.541	3100	F	2002
From: Blue Ridge Ave																
To: Commerce Ave																
4005 Happy CreekK Rd	0.85	**2300**	**F**	99%	0%	0%	0%	0%	0%	C	0.098	F	0.563	2500	F	2002
From: Commerce Ave																
To: 6Th St																
4006 Kendrick Lane	0.19	**7700**	**F**	99%	0%	1%	0%	0%	0%	C	0.088	F	0.511	8200	F	2002
From: Shenandoah Ave																
To: 6Th St																
4006 6Th St	0.11	**7200**	**F**	97%	0%	1%	1%	1%	0%	F	0.083	F	0.501	7600	F	2002
From: Kendrick Ln																
To: US 340 North Royal Ave																
4006 6Th St	0.14	**5400**	**F**	97%	0%	1%	1%	1%	0%	F	0.085	F	0.507	5700	F	2002
From: US 340 North Royal Ave																
To: Commerce Ave																
4006 6Th St	0.62	**6200**	**F**	97%	0%	1%	1%	1%	0%	C	0.092	F	0.516	6600	F	2002
From: Commerce Ave																
To: Happy Creek Rd																
4006 Happy Creek Rd	2.19	**5000**	**F**	97%	0%	1%	1%	1%	0%	F	0.097	F	0.561	5300	F	2002
From: 6Th St																
To: ECL Front Royal																
4010 Shenandoah Ave	0.50	**6000**	**F**	97%	0%	1%	0%	2%	0%	C	0.087	F	0.519	6300	F	2002
From: Kendrick Lane																
To: 14Th St																
11th St		**880**	**F**								0.094	F		880	F	2002
From: Virginia Ave																
To: North Royal Ave																
13th St		**560**	**F**								0.094	F	0.519	560	F	2002
From: Jefferson Avenue																
To: Monroe Avenue																
Jamestown Road		**1300**	**F**								0.089	F	0.562	1300	F	2002
From: Accomac Road																
To: Charles Street																

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						2Axle	3+Axle	1Trail	2Trail							
Kendrick Lane		**3400**	**F**	From: Massanutten Avenue To: Shenandoah Avenue							0.090	F	0.563	3400	F	2002
Washington Avenue		**340**	**F**	From: Happy Creek Road To: 6th Street							0.121	F	0.563	340	F	2002